

Mount Airy

granite

The North Carolina Granite Corporation

Mount Airy
North Carolina





the granite deposit

Five hundred years of quarrying at the present production rate of 3,000 carloads a year will not have exhausted the remarkable deposit of Mount Airy Granite pictured above. Viewed from the air, the visible portion of the deposit is somewhat in the shape of an enormous oyster shell. The area of the quarry under actual operations is in excess of eighty acres, 3,100 feet long and 1,800 feet wide. Sixty years of carefully planned quarry operations have preserved and developed the almost ideal natural features of the deposit. Overburden has been stripped away and working surfaces kept free from grout and other waste materials.

The deposit of granite is perfectly solid, showing no natural bed planes or seams. The rift or easiest splitting way of the granite is approximately parallel to the top surface of the deposit. This fact enables the quarrymen to form sheets of granite several acres in area and of almost any required thickness. This "lifting" process is an interesting combination of confined black powder gases and the natural tendency of the granite to expand under the heat of summer days and contract under the coolness of Blue Ridge Mountain nights. Space will not permit a detailed description of this quarrying process, but it may readily be seen that granite taken from this solid mass has not been discolored or adulterated by contact with interlying deposits of soil and other foreign matter. Perfectly sound pieces of granite up to the limits of railroad transportation are easily obtained.

Mount Airy is a biotite granite of medium grain. The color is a very light grey, almost white. The feldspar is white, the quartz a blue grey and the mica black; all of which are evenly distributed throughout the entire deposit. Uniformity of color and quality is assured for all jobs regardless of size.

production facilities

Physical equipment of the quarry, crusher and cutting departments is modern and complete. It is adequate to insure the rapid and efficient completion of large contracts and it is of sufficient capacity to handle unusually large pieces of granite. Standard gauge railroad tracks extend around and through the quarry, and to the cutting, sawing, and crushing plants. Railroad rolling stock includes a new diesel-electric locomotive, three locomotive cranes, thirteen flat cars, six dump cars, and two box cars. In addition to the railroad equipment, a $1\frac{1}{2}$ -yard shovel, a large crawler crane, two Hough loaders, and several large tractors, trucks and drag engines are used in handling products in the quarry. Compressed air is used to operate the drilling tools.

The three principal cutting plants have a combined floor space in excess of 78,000 square feet. This space is completely served by five electric, overhead traveling cranes with capacities ranging from twenty to forty tons each. Heavy granite cutting machinery includes two gang saws, three large carborundum saws, four diamond saws, three turning lathes, high-speed polishing machines, one polishing lathe and two complete sand-blast installations. Surfacing machines and the standard pneumatic and hand tools are sufficient for the requirements of a large number of granite cutters. Drills, points, chisels, and other tools are made and kept in first-class condition in the modern forge, machine and blacksmith shops.

The greater part of the heavy machinery is driven by electric power furnished by the Duke Power Company. Compressed air for the quarry and plants is provided by two large compressors with a combined capacity of 5,000 cubic feet of air per minute. Water is electrically pumped from the Ararat River into an elevated steel tank with capacity of 60,000 gallons.

Each of the departments is under the supervision of experienced and efficient granite men. Particular care has been exercised in the development of accuracy





and dependability in the estimating department and drafting rooms. The majority of the granite cutters and quarry workers are natives of this section and own their own homes. This labor is skillful and loyal. There is a notable minority of the "drifters" and malcontents so characteristic of most of the large granite producing centers.

products

Quarry products include dimension granite and sawed slabs for buildings and monumental purposes, sawed bed ashlar, rubble, street curbing, rip-rap and specialty crushed stones. Cut, carved and polished granite for all purposes is manufactured in the finishing plants.

Mount Airy Granite memorials and buildings have been erected in practically every state in the Union. Lists of references may be secured by writing our Mount Airy offices.

As a service to Architects and Builders, we keep in stock a variety of colored granites for use as trim in connection with our Mount Airy Granite. We thus can often save the builder the difference between carload and less-carload freight, and also avoid the necessity of making and reconciling two different granite shop drawings.

deliveries

Mount Airy is served by the Southern Railway Company with nearby connections to the Norfolk & Western Seaboard Air Line, Atlantic Coast Line, and other railroads.

Freight rates are comparatively reasonable and service is usually good. Care in the crating and loading of finished granite has practically eliminated the annoying and expensive delays caused by materials damaged in transit.

We can also make truck deliveries to job site.

technical data

chemical analysis

Alumina (Al_2O_3)	18.51
Calcium Oxide (CaO)	2.63
Ferric Oxide (Fe_2O_3)	1.78
Magnesium Oxide (MgO)	0.41
Manganese Oxide (MnO_2)	0.12
Potassium Oxide (K_2O)	3.96
Silica (SiO_2)	67.33
Sodium Oxide (Na_2O)	3.60
Titania (TiO_2)	0.38
Ignition loss above 105°C	1.20
Moisture dried at 105°C	0.14
Sulphur as Sulphur Trioxide (SO_3)	0.01

laboratory tests

Toughness	11
French Coefficient of Wear	9.5
Crushing Strength (per square inch)	26,875
Weight Per Cubic Foot	165



outstanding buildings

Since 1889 Mount Airy Granite has been the choice of discriminating architects for outstanding public and private buildings. Its sparkling white beauty, strength, and interesting markings make it ideal for monumental structures of all types.

Mount Airy Granite is equally effective in classical or modern architecture. The same uniform color and texture so necessary for classic moldings and carvings give to modern designs the sharp lines and proportioned surfaces that would be distorted by the use of cheaper materials with their unpredictable colors and markings.

Not only can architects depend on individual stones in a structure matching, but also he can depend on matching stone with additions made many years later. The first half of the Union Trust Building, Washington, D. C. was erected in 1907; the second half in 1927; and today further additions can be supplied in exactly matching Mount Airy Granite.

Grain and texture markings of Mount Airy Granite are refined enough for features close to the eye, yet are distinct enough to give interest and character to large plain surfaces. Mount Airy Granite is the ideal granite where enduring dignity and permanent strength are preferred above spectacular color and temporary "flash."



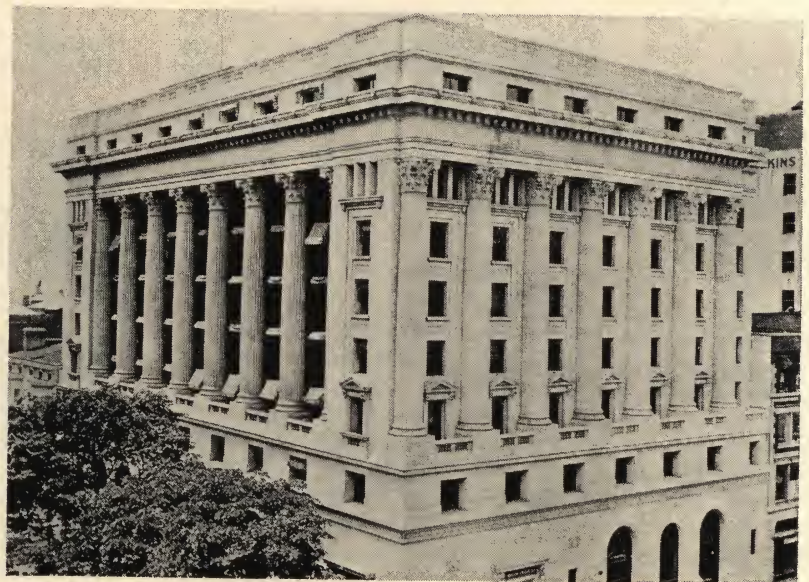
Gold Bullion Depository, Fort Knox, Ky.



Ward Hall, U. S. Naval Academy, Annapolis, Md.
PAUL PHILIPPE CRET, Architect. IRWIN & LEIGHTON, Contractors.
Cut by us from White Mount Airy Granite



The New North Carolina State Office Building at Raleigh, N. C.
NORTHROP & O'BRIEN, Architects
Exterior facing and approaches were cut by us



Union Trust Building, Washington, D. C.
The corner half of the building was erected in 1907 and the additional half in 1927





Reeves Y.M.C.A. Community Center, Mount Airy, N. C.
Front and left side approach faced with Mount Airy Granite
Recreation Planner: CHARLES M. GRAVES, Atlanta, Ga.
Associate Architect: FRED M. SIMMONS, Shelby, N. C.



St. Barnabas Church, Philadelphia, Pa.
Faced with Mount Airy Sawed Bed Ashlar
B. W. RONEY, Architect
F. CANTONO & SON, Stone Mason
J. R. FARRELL, INC., General Contractor

Comach Road Bridge, Long Island, New York
Dimension Masonry cut by us from Mount Airy Granite
State of New York, Dept. of Public Works District No. 10
J. J. DARCY, District Engineer
HENDRICKSON BROS., General Contractors
ALBERT G. MAC INNIS, Stone Contractor



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No

MOUNT AIRY
granite

An Invitation to Architects

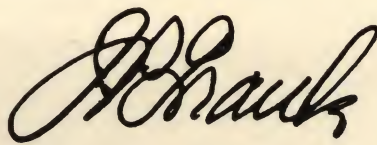
You are cordially invited to visit our quarry and plant at Mount Airy, N. C. Many architects have found such a visit interesting and enjoyable.

You will see the largest and finest natural granite quarry in the world—a solid mass of white granite a mile long, one-third of a mile wide, and so deep it probably goes down to where it gets hot.

You will see the unique way in which Mount Airy quarrymen actually split out from the solid mass sheets of granite so much as 10 feet thick and larger than a football field.

You will see a great variety of machines and tools manned by 300 skilled workers making every type of granite product from the finest statuary to poultry grit to serve as "hen's teeth".

You will receive a most sincere welcome.



J. P. Frank, President
THE NORTH CAROLINA
GRANITE CORPORATION

colored granites

In order to provide the architect and contractor with a wide range of granites from which to select and design, the North Carolina Granite Corporation manufactures a variety of domestic and imported colored granites. By special arrangement with quarry owners and importers of foreign granites we are able to offer competitive prices on finished work of all types in a large number of beautiful colors and markings.

color variations

There are many highly colored domestic and foreign granites available for special effects and features. However, the experienced architect realizes that these are a NATURAL product and that one of the characteristics of all highly colored granites is usually a variation of shades and markings in the same granite quarry and even in individual pieces. Such lack of uniformity in most colored granites need not be an objection to their use; in fact it may be a design asset particularly for selected locations and special features of a building requiring only a few matched pieces.

samples recommended

After careful study the North Carolina Granite Corporation has adopted a policy of furnishing architects with actual samples of the granites under consideration. It was decided that only by seeing such samples before selection and specification could disappointments and misunderstandings be avoided. For this reason we do not show herein color plates of the colored granites we are prepared to furnish. We strongly recommend that architects considering colored granites consult our home office for data on the varieties available and for actual samples.

domestic granites uniform

The foregoing comments on color variations do not apply to such well known standard American Granites as White Mount Airy, Chelmsford Gray, Swensons Pink, Deer Island Pink and Sargent's Carolina Pink. These standard American granites come from dependable quarries of large capacity. The architect can specify these granites with complete confidence that he will obtain granite of uniform color, strength and character.



Prudential Life Insurance Building, Jacksonville, Florida
Kemp, Bunch & Jackson, Architects
Daniel Construction Company, Inc. of Alabama, Contractor



Office Building, Southern Fire Insurance Company, Durham, N. C.
George Watts Carr, Architect
William Muirhead Construction Company, Inc., Contractor



Domestic Relations Court, Brooklyn, N. Y.
Henry V. Murphy, Architect
Warshaw Construction Co., Contractor

public memorials

Mount Airy Granite was the choice for such nationally known memorials as the Wright Brothers Memorial at Kitty Hawk, N. C., and the famous Arlington Memorial Bridge at Washington, D. C.

The unusual design of the Wright Brothers Memorial presented some interesting and difficult problems for our drafting room and cutting plants. The wing features on two sides of the triangular pylon present no true plane surfaces. Exact mathematical calculations and cutting technique were required to insure a proper fitting together of individual pieces.

The Arlington Memorial Bridge contains more than 300,000 cubic feet of Mount Airy Granite and is considered one of the finest granite structures in America. Each of many thousands of pieces of cut granite is an example of first-class workmanship in every detail of execution.



Wright Brothers Memorial, Kitty Hawk, N. C.

private memorials

White Mount Airy Granite has been used in more private mausoleums than any other American granite. The reasons are outlined below:

1. The whitest of all granites.
2. Uniform in color and texture.
3. Obtainable in the largest sizes, limited only by railroad transportation facilities.
4. Absolutely free from foreign substances which might cause stains or discoloration.
5. Exactingly graded for quality.
6. Cut and carved to peerless standards of craftsmanship.
7. Produced by an organization with a reputation for first class work backed by sixty years of experience.

Mount Airy is America's ideal mausoleum granite. The Harvey S. Firestone Memorial at Akron, Ohio, is probably the finest private memorial in the United States. Mount Airy was one of two American granites considered for this memorial—Mount Airy was finally chosen. We invite your inspection of the granite and workmanship in this beautiful memorial.

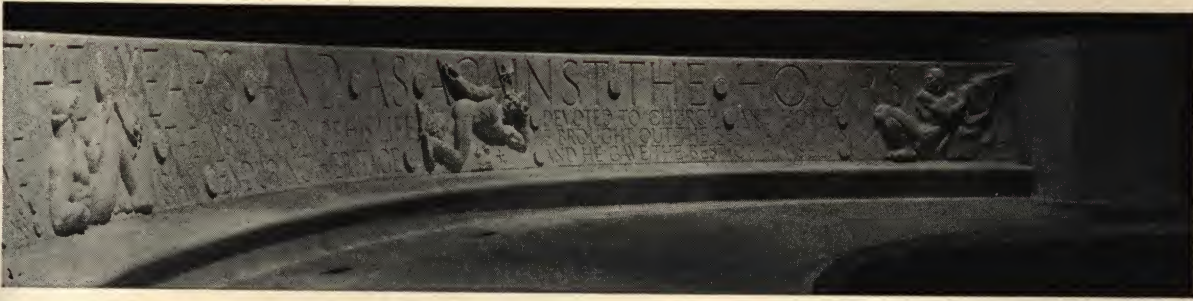


The John F. Cuneo Mausoleum in Calvary Cemetery, Chicago
Designed by ALFRED S. ALSCHULER, INC., Architects
Cut by The J. D. SARGENT S. GRANITE CO. Mount Airy, N. C.
from White Mount Airy Granite



MOUNT AIRY granite

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No



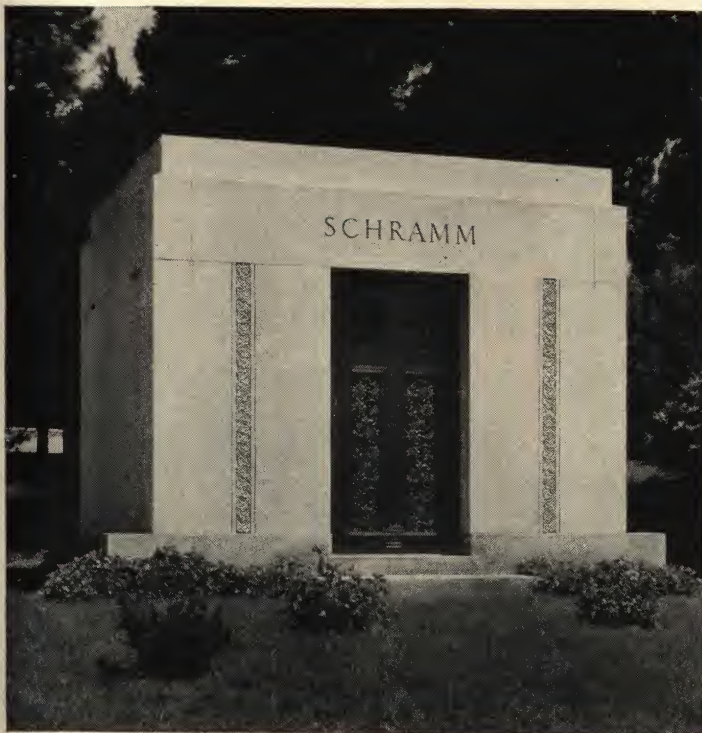
Harvey S. Firestone Memorial, Akron, Ohio
Carving in Mount Airy Granite
MR. DONALD DE LUE, Sculptor
ERIC GUGLER, Architect



War Memorial on Campus of State College
at Raleigh, N. C.
Designed by WILLIAM HENRY DEACY



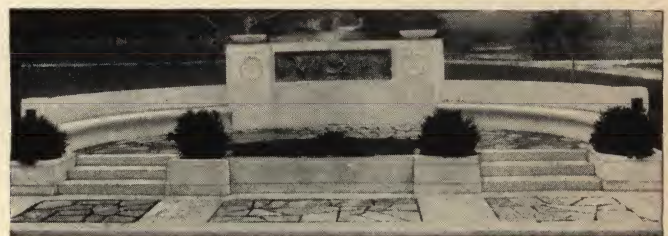
Arlington Memorial Bridge, Washington, D. C.



Mausoleum designed by H. K. Peacock Memorials, Inc.
and erected in Kensico Cemetery, New York



Underground 4-Crypt Mausoleum erected at
Mt. Airy Cemetery
Designed by our own A. CLARK LACKEY



Galbraith Memorial at Cincinnati, Ohio

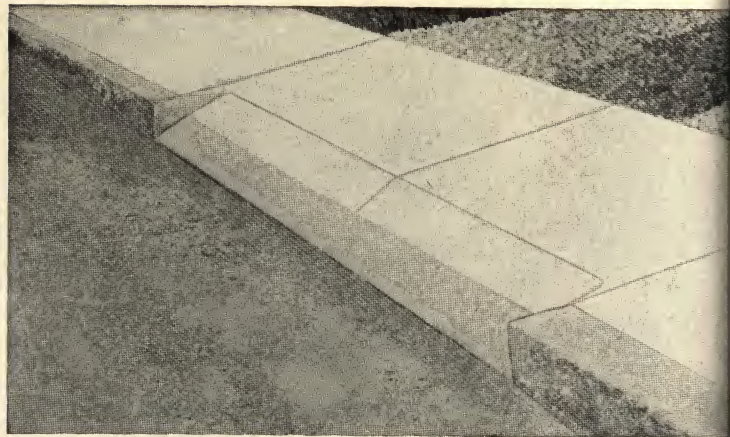
granite street curbing

With the annual increase in motor traffic, there is the increasing need for controlling traffic movement for the protection of both motorists and pedestrians. Mount Airy Granite Street Curbing used for highways and sidewalks provides just the protection needed, because it makes the edge of the pavement clearly visible even for night driving.

In addition, Mount Airy Granite Curbing will endure the ever increasing battering from more and heavier truck loads. It is not affected by the extremes of temperature.

If the street or highway is ever changed, the granite curbing can be taken up and used over again.

The cost of granite curbing is not as much as one might think. Our recommended specifications are the result of 60 years of curbing producing experience, and they are designed for economy of production, strength, neat appearance, and protection of tires.



suggested specifications for 5" x 16" granite street curbing

Granite Curbing shall be of uniform grain, texture, and color-free from seams or excess mica.

The minimum length of curbing shall be four (4) feet, except for closures or for curved corners, where the length will be as ordered. The depth of the curbing shall be sixteen (16) inches, with an allowable variation of one (1) inch over or under. The curbing shall be uniformly five (5) inches wide on top between neat lines. The minimum width at bottom shall be one (1) inch

sawed bed ashlar

Mount Airy Sawed Bed Ashlar brings a granite house within the budget of the average residential builder. The exterior walls can be faced with Mount Airy Sawed Bed Ashlar for about 8% more than the normal building cost, but its use can actually enhance the value of the residence as much as 20%.

In addition, Mount Airy Ashlar is also suitable for sills, lintels, and other trim for brick houses. It is especially suitable for steps.

Mount Airy Sawed Bed Ashlar is cut to brick thickness, and in multiples of brick rises. The average brick mason can readily learn to knap the sticks into desired lengths and set in the wall.

For real economy in residential, church and other veneer construction, use Mount Airy Sawed Bed Ashlar.

Write us for more complete details.



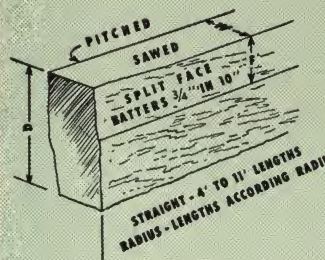
(specifications—continued)

less than the top.

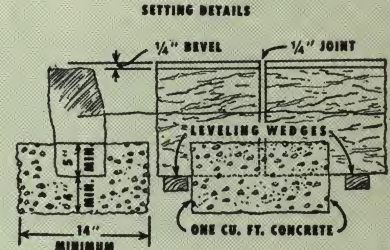
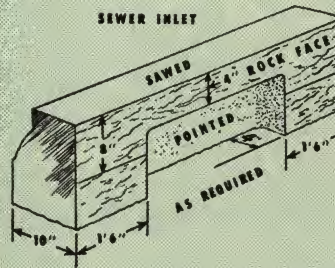
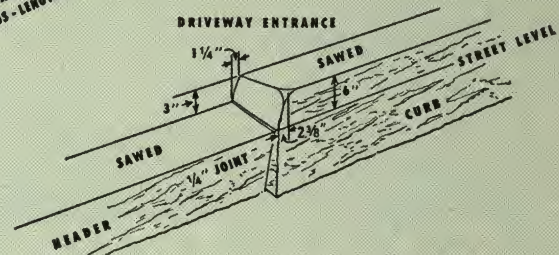
The top shall be gang sawed or good peen-hammered finish, and shall be out of wind. The face of the curb shall be split so that it batters outward $\frac{3}{4}$ " in 10" from the square on top. For a depth of ten (10) inches on the face no depressions or projections shall exceed one (1) inch. For a depth of two (2) inches from the top, the back of the curbing shall be square with the top with no depression or projection exceeding one-quarter ($\frac{1}{4}$) inch. The end joints shall be out of wind and squared for the full width of the stone to a distance of three (3) inches below the top, and one and one-half ($1\frac{1}{2}$) inches back from the face for a distance of at least seven (7) inches down from the top.

Circular curbing shall be cut to the radius and lengths specified by the Engineer, but no individual piece should exceed seven (7) feet in length or a 90-degree arc.

Curbing shall be set with the top six (6) inches above the street level and sloping toward the front one-quarter ($\frac{1}{4}$) inch from level. All joints shall be one-quarter ($\frac{1}{4}$) inch and secured in true alignment by bedding them in one (1) cubic foot of 1:2:4 concrete at least four (4) inches thick under the bottom of the curb and up the front and back sides for five (5) inches.



STANDARD DIMENSIONS				USE WHERE CLIMATE
W	D	F		
4"	14"	8"		VERY MILD
4½"	15"	8"		MILD
5"	16"	10"		COLD
5"	18"	10"		VERY COLD



rubble stone

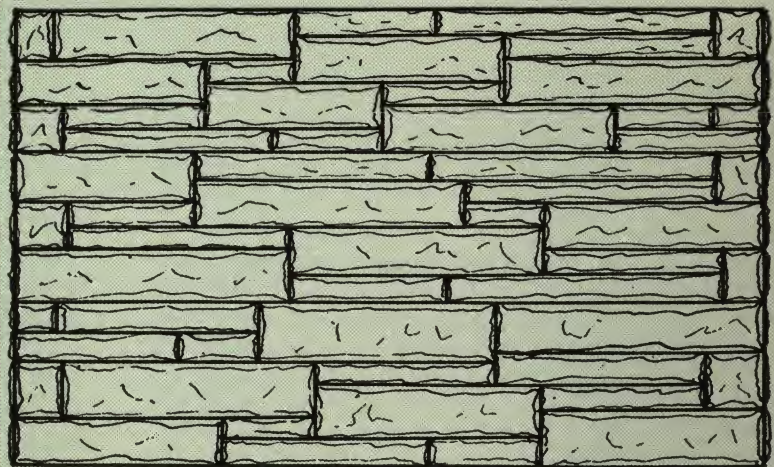
Our rubble stone is supplied in rough rectangular patterns that can be handled by one or two men. It is suitable for use in homes, churches, and retaining walls.

Special rubble, thin enough for use as veneer, can be supplied at slightly higher price.

The price of rubble at the quarry is considerably less than sawed bed ashlar.

On the other hand, some shaping has to be done on rubble at the job site by a stone mason.

Accordingly, the cost of setting rubble is more than the cost of setting sawed bed ashlar.



The above line drawing is a suggested broken range pattern for sawed bed ashlar and rubble.

It is of course easier to obtain long, low rises with sawed bed ashlar than with rubble which is more blocky.

Since 1889

The North Carolina Granite Corporation

member of National Building Granite Quarries Association

Mount Airy, North Carolina • telephone: Mount Airy no. 9 or no. 155

cut stone department

Sargent Granite Company, Mount Airy, N. C.



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